

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Kekki et al.	Examiner:	UNKNOWN
Serial No.:	TO BE ASSIGNED	Group Art Unit:	TO BE ASSIGNED
Filed:	June 15, 2001	Docket No.:	796.400USW1
Title:	BOOSTING OF DATA TRANSMISSION		

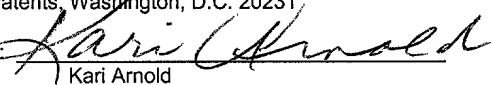
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The undersigned hereby certifies that this Transmittal Letter and the paper or fee, as described herein, are being deposited with the United States Postal Service 'Express Mail Post Office To Addressee' service under 37 CFR 1.10 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

By:


Kari Arnold

PRELIMINARY AMENDMENT

Box Patent Application
Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Please enter the following preliminary amendment into the above-referenced application.

ABSTRACT

Please insert the attached abstract into the application as the last page thereof.

CLAIMS

Please amend claims 1-13 as follows. A clean copy of the entire set of claims is included below. A marked up copy of the amended claims is included in Appendix A.

1. (AMENDED) Method for boosting data transmission in a telecommunications system including at least one fixed station, pieces of terminal equipment, which over a first transmission path are in connection with the fixed station, at least one transcoder unit on the telecommunications network side and a second transmission path between the fixed station and the transcoder unit, which telecommunications system on the first transmission path uses a first speech coding method, which is a low transmission rate speech coding,

wherein in the method

at least on a part of the second transmission path a second speech coding method is used, which is speech coding at a lower transmission rate than the first speech coding, and

the speech parameters received from the terminal equipment for transmission onto the second transmission path are converted into speech parameters of the second speech coding method and the speech parameters to be transmitted to the terminal equipment on the first transmission path are converted into speech parameters of the first speech coding method.

2. (AMENDED) Method as defined in claim 1, wherein in connection with the fixed station the speech parameters to be transmitted onto the second transmission path are converted into speech parameters of the second speech coding method and the speech parameters received from the second transmission path are converted into speech parameters of the first speech coding method.

3. (AMENDED) Method as defined in claim 2, wherein the speech parameters to be transmitted onto the second transmission path are converted into speech

parameters of the second speech coding method and the speech parameters received from the second transmission path are converted for the transmission rate of the first speech coding method.

4. (AMENDED) Method for boosting data transmission in a mobile communications system including at least one base transceiver station, at least one transcoder unit on the mobile communications network side, a transmission path between these and mobile stations which over the radio path are in connection with the base transceiver station, which mobile communications system on the radio path uses a first speech coding method, which is a low transmission rate speech coding,

wherein in the method

at least on a part of the transmission path a speech coding method is used which is speech coding at a lower transmission rate than the first speech coding, and

the speech parameters received from the mobile station for transmission onto the transmission path are converted into speech parameters of the second speech coding method and the speech parameters to be transmitted to the mobile station on the radio path are converted into speech parameters of the first speech coding method.

5. (AMENDED) Method as defined in claim 4, wherein the speech parameters to be transmitted onto the transmission path are converted into speech parameters of the second speech coding method and the speech parameters received from the transmission path are converted for a transmission rate of the first speech coding method.

6. (AMENDED) Arrangement for boosting data transmission in a telecommunications system including at least one fixed station, pieces of terminal equipment, which over a first transmission path are in connection with the fixed station, at least one transcoder unit on the telecommunications network side and a second transmission path between the fixed station and the transcoder unit, which telecommunications system on the first transmission path uses a first speech coding method, which is speech coding at a low transmission rate,

wherein the arrangement includes in a telecommunications network

at least one first speech coder for converting speech parameters to be transmitted between the first and the second speech coding method, which second speech coding method is used on the said transmission path on the transmission connection between the speech coder and the transcoder unit and it is speech coding at a lower transmission rate than the first speech coding.

7. (AMENDED) Arrangement as defined in claim 6, wherein the first speech coder is located in connection with the fixed station.

8. (AMENDED) Arrangement as defined in claim 6, wherein the arrangement includes in a telecommunications network

at least one second speech coder for converting speech parameters to be transmitted from one speech coding method into the second method so that the second speech coding method is used on the said transmission path on the transmission connection between the first speech coder and the second speech coder.

9. (AMENDED) Arrangement as defined in claim 8, wherein the second speech coder is located in connection with the transcoder unit.

10. (AMENDED) Mobile communications system including at least one base transceiver station, at least one transcoder unit on the mobile communications network side, a transmission path between these and mobile stations, which over the radio path are in connection with the base transceiver station, which mobile communications system on the radio path uses a first speech coding method, which is a low transmission rate speech coding, wherein the mobile communications system includes at least one first speech coder for converting speech parameters to be transmitted between a first and a second speech coding method, which second speech coding method is used on the said transmission path on the transmission connection between the speech coder and the transcoder unit and it is speech coding of a lower transmission rate than the first speech coding.

11. (AMENDED) Mobile communications system as defined in claim 10, wherein the first speech coder is located in connection with the base transceiver station.

12. (AMENDED) Mobile communications system as defined in claim 10, wherein the mobile communications system includes in a mobile communications network

at least one second speech coder for converting speech parameters to be transmitted from one speech coding method into a second method so that the second speech coding method is used on the said transmission path on the transmission connection between the first speech coder and the second speech coder.

13. (AMENDED) Mobile communications system as defined in claim 12, wherein the second speech coder is located in connection with the transcoder unit.

REMARKS

The above preliminary amendment is made to insert an abstract page into the application and to amend claims 1-13.

Applicant respectfully requests that this preliminary amendment be entered into the record prior to calculation of the filing fee and prior to examination and consideration of the above-identified application.

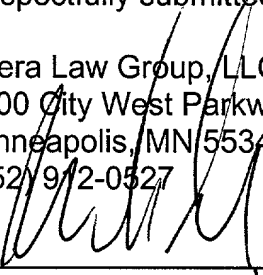
If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicant's attorney of record, Michael B. Lasky at 952-912-0527.

Respectfully submitted,

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Appendix A
Marked Up Version of the Amended Claims

1. (AMENDED) Method for boosting data transmission in a telecommunications system including at least one fixed station [(BTS)], pieces of terminal equipment [(MS)], which over a first transmission path are in connection with the fixed station, at least one transcoder unit [(TRAU)] on the telecommunications network side and a second transmission path between the fixed station [(BTS)] and the transcoder unit [(TRAU)], which telecommunications system on the first transmission path uses a first speech coding method, which is a low transmission rate speech coding,

[c h a r a c t e r i z e d in that] wherein in the method

at least on a part of the second transmission path a second speech coding method is used, which is speech coding at a lower transmission rate than the first speech coding, and

the speech parameters received from the terminal equipment for transmission onto the second transmission path are converted into speech parameters of the second speech coding method and the speech parameters to be transmitted to the terminal equipment on the first transmission path are converted into speech parameters of the first speech coding method.

2. (AMENDED) Method as defined in claim 1, [c h a r a c t e r i z e d in that] wherein in connection with the fixed station [(BTS)] the speech parameters to be transmitted onto the second transmission path are converted into speech parameters of the second speech coding method and the speech parameters received from the second transmission path are converted into speech parameters of the first speech coding method.

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3. (AMENDED) Method as defined in claim 2, [c h a r a c t e r i z e d in that] wherein the speech parameters to be transmitted onto the second transmission path are converted into speech parameters of the second speech coding method and the speech parameters received from the second transmission path are converted for the transmission rate of the first speech coding method.

4. (AMENDED) Method for boosting data transmission in a mobile communications system including at least one base transceiver station [(BTS)], at least one transcoder unit [(TRAU)] on the mobile communications network side, a transmission path between these and mobile stations [(MS)] which over the radio path are in connection with the base transceiver station, which mobile communications system on the radio path uses a first speech coding method, which is a low transmission rate speech coding,

[c h a r a c t e r i z e d in that] wherein in the method

at least on a part of the transmission path a speech coding method is used which is speech coding at a lower transmission rate than the first speech coding, and

the speech parameters received from the mobile station for transmission onto the transmission path are converted into speech parameters of the second speech coding method and the speech parameters to be transmitted to the mobile station on the radio path are converted into speech parameters of the first speech coding method.

5. (AMENDED) Method as defined in claim 4, [c h a r a c t e r i z e d in that] wherein the speech parameters to be transmitted onto the transmission path are converted into speech parameters of the second speech coding method and the

speech parameters received from the transmission path are converted for a transmission rate of the first speech coding method.

6. (AMENDED) Arrangement for boosting data transmission in a telecommunications system including at least one fixed station [(BTS)], pieces of terminal equipment [(MS)], which over a first transmission path are in connection with the fixed station, at least one transcoder unit [(TRAU)] on the telecommunications network side and a second transmission path between the fixed station [(BTS)] and the transcoder unit [(TRAU)], which telecommunications system on the first transmission path uses a first speech coding method, which is speech coding at a low transmission rate,

[c h a r a c t e r i z e d in that] wherein the arrangement includes in a telecommunications network

at least one first speech coder for converting speech parameters to be transmitted between the first and the second speech coding method, which second speech coding method is used on the said transmission path on the transmission connection between the speech coder and the transcoder unit and it is speech coding at a lower transmission rate than the first speech coding.

7. (AMENDED) Arrangement as defined in claim 6, [c h a r a c t e r i z e d in that] wherein the first speech coder is located in connection with the fixed station [(BTS)].

8. (AMENDED) Arrangement as defined in claim 6, [c h a r a c t e r i z e d in that] wherein the arrangement includes in a telecommunications network

at least one second speech coder for converting speech parameters to be transmitted from one speech coding method into the second method so that the

second speech coding method is used on the said transmission path on the transmission connection between the first speech coder and the second speech coder.

9. (AMENDED) Arrangement as defined in claim 8, [c h a r a c t e r i z e d in that] wherein the second speech coder is located in connection with the transcoder unit [(TRAU)].

10. (AMENDED) Mobile communications system including at least one base transceiver station [(BTS)], at least one transcoder unit [(TRAU)] on the mobile communications network side, a transmission path between these and mobile stations [(MS)], which over the radio path are in connection with the base transceiver station, which mobile communications system on the radio path uses a first speech coding method, which is a low transmission rate speech coding, [c h a r a c t e r i z e d in that] wherein the mobile communications system includes

at least one first speech coder for converting speech parameters to be transmitted between a first and a second speech coding method, which second speech coding method is used on the said transmission path on the transmission connection between the speech coder and the transcoder unit and it is speech coding of a lower transmission rate than the first speech coding.

11. (AMENDED) Mobile communications system as defined in claim 10, [c h a r a c t e r i z e d in that] wherein the first speech coder is located in connection with the base transceiver station [(BTS)].

12. (AMENDED) Mobile communications system as defined in claim 10, [c h a r a c t e r i z e d in that] wherein the mobile communications system includes in a mobile communications network

at least one second speech coder for converting speech parameters to be transmitted from one speech coding method into a second method so that the second speech coding method is used on the said transmission path on the transmission connection between the first speech coder and the second speech coder.

13. (AMENDED) Mobile communications system as defined in claim 12, [c h a r a c t e r i z e d in that] wherein the second speech coder is located in connection with the transcoder unit [(TRAU)].

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